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INDEXES OF SOCIAL STRATIFICATION: WHAT DO THEY MEASURE?

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Abstract

This study is concerned with the ability of standard indexes of socioeconomic status and similar devices to measure major dimensions of social stratification for whites and blacks. Factor analyses of survey data for samples of both races uncovered five matching factors and two others unique to a single sample, all of which seem to represent important components of stratification. Most of the indexes were relevant to three matching factors, and some of these measures consistently loaded them in both samples. However, several of the pertinent indexes only loaded white versions of these factors, and some failed to load any. Few, if any, indexes were relevant to or loaded the remaining factors. Additionally, some indexes were not pertinent to and did not load any factor. In contrast to the indexes, other variables loaded all but one of the factors. The main conclusions are that (a) the coverage of the indexes is restricted; (b) the devices are not uniformly applicable to blacks; and (c) the complexity of this domain requires separate measures of each factor, achievable by combining standard indexes and new variables.

Indexes of Social Stratification: What Do They Measure?

Indexes of socioeconomic status and other measures of social stratification, intended to gauge individuals' positions on a hierarchy in society, are widely used throughout the behavioral and social sciences as well as in other fields for a variety of purposes. The indexes are commonly employed in research as descriptive variables in reporting the characteristics of samples, as control variables in eliminating extraneous sources of variation in other variables of interest (e.g., the relationship between religious affiliation and birth control practices, holding social position constant), as independent variables (e.g., the association between social position and mental illness), and as dependent variables (e.g., the correlation between city vs. rural origin and social position). The indexes are also used operationally for everything from describing patients in psychotherapy settings to determining the eligibility of applicants for government assistance. In addition, paralleling the various research and operational uses of the indexes with individuals, these measures are also employed in much the same way with neighborhoods, cities, and other social units; such applications are beyond the scope of this discussion.

A plethora of ad hoc and standardized measures exist, most of which are merely minor variants of each other. The majority are based on single variables, typically occupation (quantified in terms of its prestige), education, income, and the respondent's self-report of his or her social class (as exemplified by Centers' [1] Class Identification measure). There are also some scales based on several variables, the best known being Hollingshead's (2) Two Factor Index of Social Position (a combination of occupation and education); Warner, Meeker, and Eells'

(3) Index of Status Characteristics (a merger of occupation, source of income, type of house, and type of neighborhood), and Chapin's (4) Social Status scale (a composite of possessions and living room furnishings). Many of the measures are described elsewhere (5).

A serious criticism leveled at such indexes is that they fail to assess all the potentially important aspects of stratification (6). Most of the measures are concerned with social status (i.e., prestige in the community) or economic position, but the theoretical and empirical literature describes a number of other dimensions. Perhaps one of the most important is political power, a major component in Weber's (7) classic conception of stratification and one that has largely been neglected in research on stratification (8), though intensively examined in studies of community leadership and decision making (9).

A second objection to the indexes is that they are not applicable to blacks, because the measures are based on research with whites, and the social structures of the two races differ (10). The evidence on this point is contradictory. With a few important exceptions, the indexes' ability to predict important criteria is usually similar for whites and blacks (11). However, the measures are typically more highly interrelated for whites (12).

This article presents some findings, obtained in the course of a larger study (13), on the ability of common indexes of this kind to measure the major dimensions of stratification that can be empirically identified for whites and blacks.

A survey was carried out in Lucas County, Ohio, which consists of Toledo, several suburban communities, and rural areas. Interviews were completed, during 1967-1968, with probability samples of 225 white and

206 black heads of households. The interview was based on a questionnaire designed to assess a comprehensive set of potentially important variables:

(a) Those that reflected major theoretical dimensions (the conceptions of Weber [7], Warner [3, 14], and Centers [1] were emphasized, but dimensions associated with other theories were also considered).

(b) Those that represented common indexes of stratification (they comprised all the popular measures, whether standardized or ad hoc).

(c) Those that tapped well established correlates of stratification (these included attitudes, values, aspirations, child rearing practices, and leisure time activities).

(d) Those that concerned relevant control variables and descriptive characteristics of the repondents (e.g., frankness, marital status).

Additional variables were derived from area and home ratings made during the sampling process, characteristics of the interviews and interviewers reported in field records, and statistics for the census tracts where the respondents lived.

Factor analysis was employed to identify the dimensions underlying the variables. Fifty-nine variables representing theoretical dimensions and indexes, and 94 consisting mainly of correlates and controls were factor analyzed for the two samples (15). The factor composition of the second set of variables was estimated indirectly, principally because of their large number and heterogeneity.

Eighteen factors were found for the white sample and 19 for the black. Five white and six black factors were similar (a white residence

factor corresponded to two black factors). The matching factors, besides residence, were social status, main support's social status (the respondent's own main support during childhood), organization activity, and political activity and efficacy. Two other factors, each unique to a single sample, were also notable: self-employed, for whites; and class consciousness, for blacks. As discussed elsewhere (13), all these factors seem to represent important dimensions of stratification, judging from their congruence with existing theories of stratification and previous factor analyses in this area, the latter limited to predominantly or exclusively white samples. The social status factor is consistent with both Weber's (7) and Warner's (3, 14) conceptions of this dimension, the main support's social status and the residence factors also support Weber's view of social status, and the organization activity as well as the political activity and efficacy factors are both congruent with Weber's notion of power. Additionally, the white self-employed and black class consciousness factors, respectively, confirm Marx's (16) and Centers' (1) theories of social class. The social status and residence factors were found in all the earlier factor analyses (17, 18), and the main support's social status factor was identified in one of the studies (17). None of the other factors were obtained before.

Table 1 summarizes the salient loadings on these factors. All the indexes are included in this table along with other variables in the study that either had consistent loadings in both samples on a matching factor or a loading on a factor unique to a single sample.

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Insert Table 1 about here
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The indexes had limited success in measuring the factors. Most of these devices were relevant to three matching factors: social status, main support's social status, and residence. Several indexes had loadings on each factor, some achieving loadings in both samples. Social status was consistently measured by Interviewer's Rating of Social Class and all the indexes of respondent's education, main support's social status by all the indexes of parent's occupation and education, and residence by Interviewer's Rating of House Type and Interviewer's Rating of Area. However, some indexes had loadings on the white version of a factor but not its black counterpart: Hollingshead's scale and each of the indexes of respondent's occupation, with respect to social status; and Chapin's scale, in the case of residence. And two indexes did not have loadings on the appropriate factors in either sample: Warner et al.'s scale, with regard to social status; and Rent, vis-à-vis residence.

Few indexes were relevant to the white self-employed and black class consciousness factors. Both indexes pertinent to the former had loadings on it: Own Occupation--power and Source of Income, but the two bearing on the latter did not have any loadings: Own Occupation--power and Centers' Class Identification measure. No index was pertinent to the other matching factors, organization activity or political activity and efficacy, and none had loadings on them. And several indexes were not relevant to any of the factors and had no loadings: Possessions and all the income indexes.

In contrast to the circumscribed pattern of results for the indexes, other variables in the study were able to measure all the factors, except main support's social status. Among the matching factors, social status was consistently measured by Interviewer's Rating of Intelligence and

Interviewer's Rating of Grammar, residence by Self-Report of Comparative Neighborhood Quality and all the census tract indexes, organization activity by each of the organization variables, and political activity and efficacy by Takes Active Part in Local Issues and Had Contact with Officials or Politicians about Something He/She Wanted. Of the factors unique to a single sample, self-employed was measured by Current or Last Job: Self-Employed vs. Works for Someone Else and Personal vs. Impersonal Factors in Getting Ahead on a Job, and class consciousness by the former variable plus Thinks of Self as Being in a Social Class and Believes There are Two or More Social Classes.

The results confirm some of the misgivings about the indexes. First, the coverage of these devices is, indeed, somewhat restricted. Although they measured most of the important factors that were identified, their inability to tap those dealing with power is a serious shortcoming. It is apparent that the indexes do not provide a comprehensive assessment of all the major elements of stratification and that efforts based on these devices are correspondingly limited. A clear need exists for including measures of power, especially, in work in this area, in order to achieve a more adequate appraisal of the entire stratification domain as well as a better understanding of this long neglected component of it.

Second, the indexes are not, in fact, uniformly applicable to blacks. A number of the devices functioned similarly for both races, but several broke down for blacks, including some of the most popular. The value of research and operational uses of such measures with blacks is necessarily called into question, for these particular indexes do not appear to reflect any important aspect of stratification for this race. It is obvious that future efforts with blacks requires more meaningful indexes.

The findings also raise a new concern. The failure of several widely used indexes to tap any of the pertinent factors produces grave doubts about the usefulness of these devices and the meaning of applications that rely on them.

Finally, the number of major factors identified has broad consequences for measurement efforts. A central implication is that no single index can assess this entire domain; the complexity involved calls for separate measures of each key dimension. A related point is that different indexes may not necessarily be equivalent. Caution is essential in interpreting the results of research and operational applications that do not employ the same indexes, an observation reinforced by previous findings of dissimilar patterns of relationships between some of these measures and various criteria (6). And special care is needed in selecting comparable measures for new work.

In light of the preceding discussion, it is worth observing that all the factors, even the two concerned with power, can be measured--consistently for both races in the case of the matching ones--by supplementing the indexes with the other variables in the study.

Maximum accuracy in devising measures of each factor can be achieved by using all the indexes and variables that have loadings on it. However, to make the measures as comparable as possible for the two races, it seems desirable to use exactly the same ones for both. Measures of the matching factors may be based on the indexes and variables with loadings in both samples. Measures of the unique white and black factors may be derived from the indexes and variables with loadings in the sample where each factor emerged, and the usefulness of these devices subsequently explored with the other race.

Despite the importance of each of the factors, it is unnecessary to assess them all in every case. Factors can be selected on the basis of their special pertinence (21). For example, a study of family characteristics associated with educational aspirations of children might call for a measure of social status only; an investigation of genetic influences in criminality, which demands control for all potentially irrelevant variation, might require measures of every factor; and operational use in case work with welfare recipients might necessitate measures of the social status and residence factors.

In closing, it should be recognized that these observations concerning the limited ability of common indexes to assess key dimensions of stratification and the potential usefulness of other variables in this endeavor as well as the suggestions about new measurement strategies stem from a study of one community at a particular time. The need for caution in generalizing these findings and recommendations cannot be overemphasized. At the very least, though, it appears likely that they will be applicable for the near future in large Northern communities typified by Toledo.

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Table 1

Summary of Loadings of Stratification Indexes and Other Variables on Major Factors

Measure	White Factor						Black Factor						
	Social Status	Residence	Organization Activity	Political Activity and Efficacy	Main Support's Social Status	Self-Employed	Social Status	Residence A	Residence B	Organization Activity	Political Activity and Efficacy	Main Support's Social Status	Class Consciousness
Index													
Hollingshead's Two Factor Index of Social Position (2)[a]	(.41)						( )						
Warner et al.'s Index of Status Characteristics (3)[a]	( )						( )	.64					
Chapin's Social Status Scale (4)[a]	( )?	(.34)					( )?		( )	.34			
Interviewer's Rating of Social Class	(.37)?						(.32)?	.36					
Centers' Class Identification Measure (1)	( )?						( )?						( )
Own Occupation--Duncan scaling (19)	(.44)						( )						
Own Occupation--Hollingshead (2)[a]	(.37)						( )						
Own Occupation--Warner et al. (3)[a]	(.44)						( )						
Own Occupation--Centers' power (1)						(.51)							( )
Own Education--years	(.35)						(.43)						
Own Education--Hollingshead (2)[a]	(.36)						(.43)						
Own Education--Warner et al. (3)[a]	(.36)						(.48)						
Own Income--in 1000's													
Own Income--Warner et al. (3)													
Family Income--in 1000's[a]													
Source of Income--Warner et al. (3)						(.34)							
Possessions													
Rent--actual or estimated		( )							( )				
Interviewer's Rating of House Type--Warner et al. (3)		(.35)						(.67)					
Interviewer's Rating of Area--Warner et al. (3)		(.61)						(.69)					
Main Support's Occupation--Duncan scaling (19)[b]					(.52)							(.45)	
Father's Occupation--Duncan scaling (19)[ab]					(.76)							(.68)	
Mother's Occupation--Duncan scaling (19)[ab]					(.61)							(.36)	
Main Support's Education--years[b]					(.53)							(.73)	
Father's Education--years[ab]					(.82)							(.79)	
Mother's Education--years[ab]					(.50)							(.53)	

Table 1 (Continued)

Measure	White Factor						Black Factor					
	Social Status	Residence	Organization Activity	Political Activity and Efficacy	Main Support's Social Status	Self-Employed	Social Status	Residence A	Residence B	Organization Activity	Political Activity and Efficacy	Main Support's Social Status	Class Consciousness
Other Variable													
Interviewer's Rating of Intelligence	(.49)						(.57)						
Interviewer's Rating of Grammar	(.55)						(.65)						
Self-Report of Comparative Neighborhood Quality		(.59)						(.63)					
Census: Median House Value for Census Tract (20)		(.52)							(.82)				
Census: Median Rent for Census Tract (20)		(.45)							(.48)				
Census: Percent Deteriorating and Dilapidated Housing for Census Tract (20)		(-.40)							(-.64)				
Number of Organization Memberships			(.67)							(.70)			
Number of Organizations that Take Stands on Public Issues			(.55)							(.61)			
Attendance at Organization Meetings [a]			(.47)							(.36)			
Takes Active Part in Local Issues				(.70)							(.72)		
Had Contact with Officials or Politicians about Something He/She Wanted				(.46)							(.30)		
Current or Last Job: Self-Employed vs. Works for Someone Else [a]						(.54)							(-.31)
Personal vs. Impersonal Factors in Getting Ahead on a Job						.40							
Thinks of Self as Being in a Social Class													(.39)
Believes There are Two or More Social Classes													(.60)

Note. Loadings (i.e., correlations with reference vectors) of .30 or greater are shown. Parentheses indicate an instance in which an index or or variable is clearly relevant to a factor; parentheses with a question mark indicate a case where an index or variable is potentially relevant.

[a] The loadings of this index or variable were estimated by extension procedures.

[b] This index describes the respondent's father, mother, or childhood main support.